MCG Today

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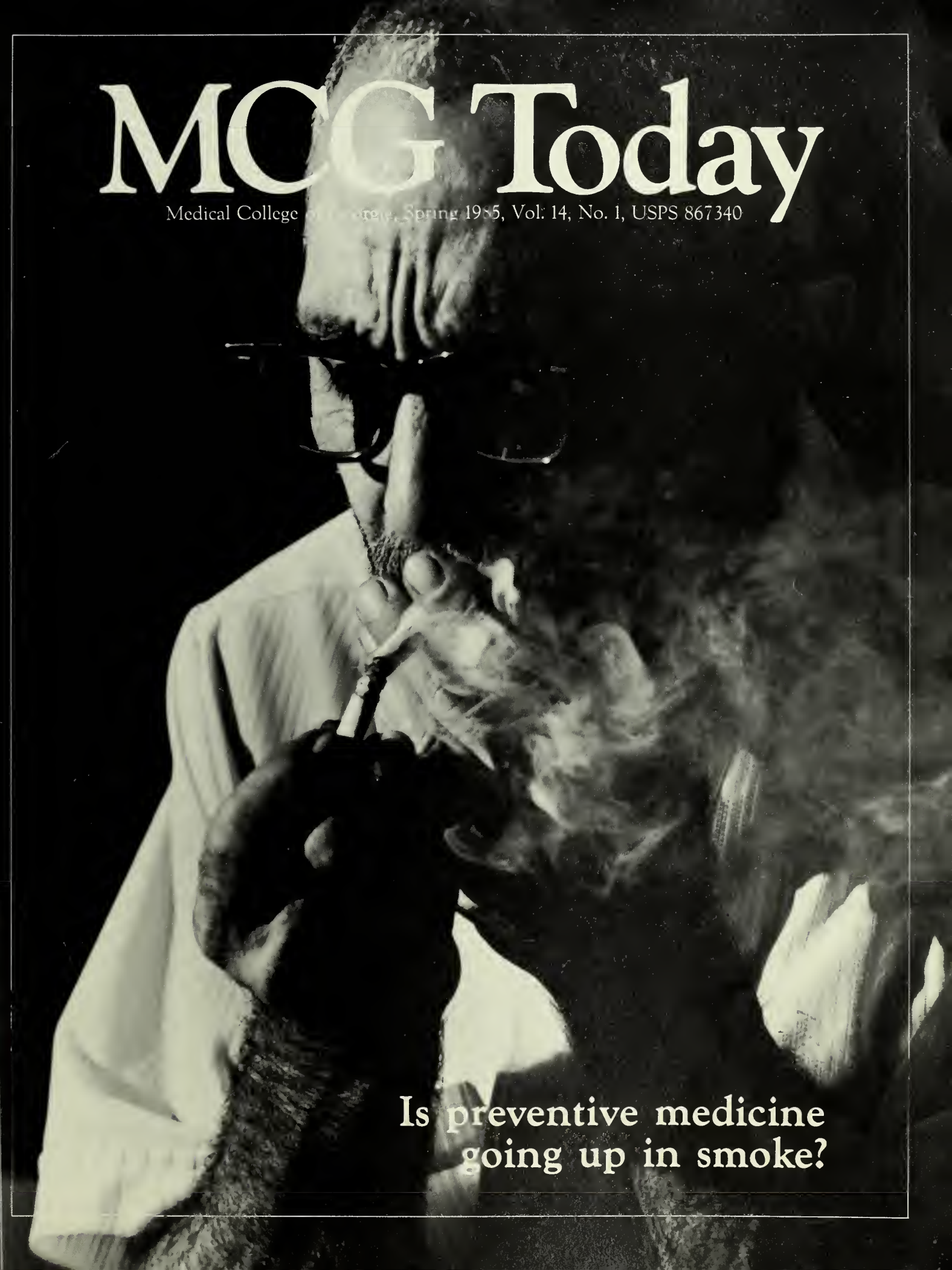

Is preventive medicine going up in smoke?

BEHIND THE LINES

What a difference a decade and a half can make. As I pull together 16 years of memories and prepare to leave MCG for new opportunities, it is with a feeling of regret tempered by the excitement of new challenges.

But it is worth looking over my shoulder to 1969, and it may be worthwhile for all of us to do the same. All too often we forget where we were and how far we have come in a few short years.

My first view of MCG was not one of great confidence. There was a campus devoid of any landscaping other than the lovely oaks near the Dugas and Murphey buildings. There was little resemblance to the beauty of today's campus as shaped by the physical plant.

My job was to "unify" the faculty and schools through internal communications and fund raising for the institution, direct the MCG Foundation, and develop a public relations and publications program.

They say it's not bragging if you can prove it. From a three member staff in 1969 to a 20-member staff in 1985, I have seen the Foundation's assets go from $181,000 to over $6 million — plus approximately $4 million in expectancies from wills, trusts, etc. It had been my hope to establish a $10 million endowment base and at least I know it is assured.

The public relations section once did the college catalog and an occasional newsletter or publication. Today it publishes a weekly newspaper, 85 various publications annually, a quarterly alumni/development magazine, a health feature service, a 24-hour patient information service to media, campus tours, a speakers bureau, quality news releases and a myriad of other tasks.

The alumni office, once part-time and dedicated only to medicine, carries out regional alumni meetings and sponsors receptions at the Southern Medical Association and the Medical Association of Georgia. The alumni office works with other schools in meetings throughout Georgia and the region. In addition, the annual Homecoming program has been instituted and grows each year.

Alumni giving has gone from dues payment to an annual fund of over $200,000 from more than 1,000 graduates. Over 130 alumni have given $1,000 to gain lifetime membership and the income from these endowment dollars provides scholarships at MCG.

The record system has been computerized and merged with word processing. Also, we have screened all national foundations and established a computer program which permits easy access by areas of interest to foundations which might help finance our programs.

The planned giving program has brought over $4 million in permanent endowment and another $4 million in future endowment gifts. Successful fund drives have increased assets to over $6 million and the Foundation is now making major financial contributions to MCG through such projects as Student Aid and the Gilbert Manor Acquisition Plan.

The President's Advisory Council is a project which gives me great pride. It is composed of a group of Georgia corporate, business, and community leaders who have agreed to work with MCG's president for the improvement of health care education in Georgia.

Some special projects which have been meaningful are: the establishment of regional alumni meetings, the annual black tie President's Dinner to thank donors, initiating the writing of an MCG history (now close to completion), the annual Homecoming, and the planning and carrying out of two presidential inaugurations.

I am proud of the staff members I worked with, but, even more so, I am indebted to great men like Dr. Harry B. O'Rear and Dr. William H. Moretz who had the foresight to build for today and for the future.

This cannot be complete without thanking the alumni and friends of MCG who have been so loyal and so supportive for so many years . . . too numerous to mention in this limited space.

I challenge you to give Dr. Jesse Steinfeld and the new Vice-President for Development your loyalty and support. Thank you for some wonderful years.

MCG Today

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CAMPUS NEWS

DOC promotes healthy lifestyle

Doctors ought to care.

Doctors ought to care about what?

According to Brian Strickman-Levitas and Adam Goldstein, student coordinators for a new organization at MCG, DOC (Doctors Ought to Care), places its emphasis on promoting healthier lifestyles.

"The Surgeon General has identified cigarette smoking as the most significant source of preventable factors contributing to illness, disability and death in the United States," Strickman-Levitas says. "In addition, it is estimated that cigarette smoking is related to over 360,000 deaths in America each year and that alcohol abuse claims another 205,000 lives annually."

Goldstein adds, "The social and economic costs associated with the treatment of individuals with these preventable illnesses runs in excess of $40 billion annually. This is because of the costs of medical care, absenteeism, decreased work productivity and accidents."

DOC was founded in 1976 by a group of family practice residents in Miami and is dedicated to exposing the dangers of tobacco, alcohol and drug abuse, particularly among teenagers and young children.

Brian Strickman-Levitas leads a press conference at the Emphysema Slims Tennis Tournament, a parody of the well-publicized Virginia Slims Tourney. He is flanked by co-organizers (from left) Beth Goodrich, Adam Goldstein and national DOC President Dr. Rick Richards, assistant professor of family medicine at MCG.

"Each year, the alcohol and tobacco industries direct more than $1 billion in advertising primarily at teenagers and it is against this media blitz that DOC is directing its efforts," Strickman-Levitas says.

"This year marks the beginning of a DOC chapter in Augusta and at MCG," Goldstein says. "Our goal will be to upstage the notion that unhealthy lifestyles are 'fun' or 'glamorous.' We are going to do this using innovative and creative ideas from students, physicians and other health professionals."

Cormier named new PA medical director

Dr. Rene E. Cormier, associate professor of medicine, section of general internal medicine, has been named medical director of the Department of Physician's Assistants, School of Allied Health Sciences. He replaces Dr. Jerry A. Smith who was medical director and chairman of the PA Department. Bonnie Alane Schmidt, PAC, is the new chairman.

Cormier received his undergraduate training at Boston College and his graduate and professional training at McGill University of Montreal, Canada. He served his residencies in Internal Medicine at Mary Imogen Bassett Hospital in Atlanta, and received Board Certification in 1974.

Before coming to MCG as assistant professor of medicine in 1973, he was instructor in medicine at the College of Physicians and Surgeons at Columbia University.

Distinguished Teacher Award goes to Hurst

Dr. J. Willis Hurst, a 1944 graduate of MCG, has been awarded the Distinguished Teacher Award by the American College of Physicians.

The award goes "to a newly elected, or previously elected, Master of the College in recognition of enobling qualities of a great teacher who has achieved leadership in the field of medical education."

Hurst did internships at University Hospital in Augusta and Fitzsimmons General Hospital before going to Massachusetts General Hospital. He was the last fellow to study cardiology under Dr. Paul Dudley White. In 1954 he became chief of cardiology at the United States Naval Hospital in Bethesda, Md. and subsequently became President Lyndon Johnson's personal physician.

In 1957, Hurst was appointed to the position he still holds today: Chairman of the Department of Medicine at Emory University School of Medicine.

Hurst and R. Bruce Logue first published in 1966, "The Heart," which is now considered a standard of excellence in cardiology textbooks.

CAMPUS NEWS

Medical Record director

Ronald G. Robinson has been named director of the Medical Record Department of the MCG Hospital.

Robinson, who holds a master's degree from Xavier University, recently completed a one-year residency in hospital administration at MCG Hospital. He graduated from Clemson University and is a native of Columbia, S.C.

Schroeder is national health consultant

Dr. Mary Ann Schroeder, a director of research in the School of Nursing, has been named a consultant to the U.S. Department of Health and Human Services, Division of Nursing.

Schroeder, who joined the MCG faculty in 1982, is nationally recognized for her work as a nursing research methodologist.

Haskins named hospital admissions head

Bonnie Haskins has been named director of admissions at the MCG Hospital. She will be responsible for the admission procedures for inpatients at the 520-bed hospital.

Haskins is a graduate of the University of Georgia. Formerly on the business faculty of the Augusta Area Technical School and a teacher in the Richmond County School System, she comes to MCG from managerial positions in an Augusta nursing home and Humana Hospital in Augusta.

Professors granted emeritus status

Drs. Boyd Sisson and John McKenzie have been granted emeritus status by the Board of Regents of the University System of Georgia.

Sisson was made associate dean emeritus of the School of Medicine and professor emeritus in the Department of Psychiatry and Health Behavior.

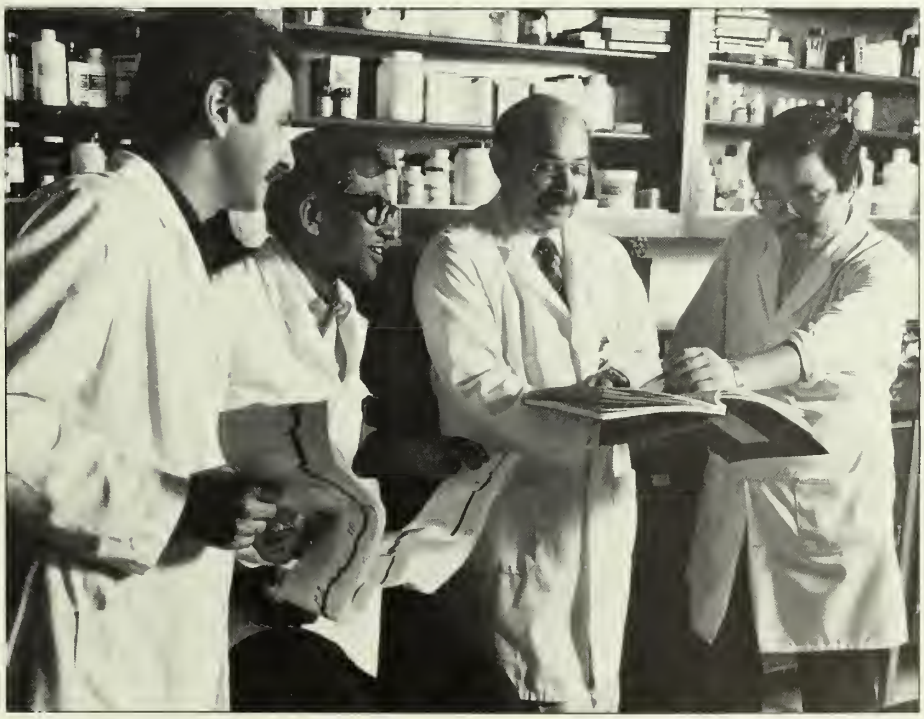
McKenzie was made professor emeritus in the Department of Anatomy.

International Kinin Congress shares bond

One passerby thought it was a reunion of the Kinin family. In a way, it was. Although the international mix of people converging at the Savannah Hyatt Hotel in October of '84 wasn't related by heritage, they did share a common bond: kinin research.

Many had attended similar gatherings over the last 30 years and reunited as old friends. Some were young researchers just entering the field.

Dr. Lowell Greenbaum, vice-president for research at MCG, dean of the School of Graduate Studies and chairman of Pharmacology and Toxicology, served as president of this year's conference, the culmination of three years of planning.



Dr.s Aydin Barlas, T.K. Narayanan, L.M. Greenbaum and Kazud Sugio go over test results for presentation at the Kinin Congress.

Over 300 researchers from 24 countries registered for the meeting which included 80 oral presentations, 200 posters, 14 special discussion programs, and six "Frontier Lectures" emphasizing new areas of research in the kinin field.

Kinins are substances the body produces during injury or disease. They cause pain, swelling and inflammation.

Kinin research began with the work of one man: Brazilian Pharmacologist Dr. Mauricio Rocha e Silva, to whom the conference was dedicated. He had to "fight to prove its existence," according to one researcher, and began meeting in 1953 with a small group of scientists to exchange information and discuss developments in the field.

These meetings have served as a catalyst to growth in kinin research. Now, every three years, scientists from around the world attend these conferences.

MCG President Jesse Steinfeld, who officially opened the Congress, said "the Medical College of Georgia is proud to act as the host institution" bringing this group to Georgia.

CAMPUS NEWS

Dr. Robert C. Ness

Journal based at MCG

Medical Anthropology, an international journal published quarterly, is now based in the Department of Psychiatry and Health Behavior at MCG. Dr. Robert C. Ness, a medical anthropologist and associate professor at MCG, is editor-in-chief.

Ness joined the faculty at MCG this summer, arriving from the University of Connecticut Health Center in Farmington, Conn.

Medical Anthropology publishes papers which explore relationships between illness and human social life as well as the cross-cultural similarities and differences in the way people cope with health problems.

"**Medical Anthropology** provides an important biosocial, cross-cultural perspective for nurses, physicians, biological scientists and other professionals in health-related fields, as well as medical anthropologists," says Ness.

Bonnie Schmidt new head of PA Program

Bonnie Alane Schmidt has been named chairman of the Department of Physician's Assistants, School of Allied Health Sciences. She replaces Dr. Biagio Vericella, acting director. Vericella is associate dean of Academic Affairs in the School of Allied Health Sciences.

Schmidt was previously an assistant professor of pediatrics and associate director of the Child Health Associate Program at the University of Colorado Health Sciences Center in Denver.

She did her undergraduate work at the University of Colorado in Boulder and received her master's degree in science (CHA) from the University of Colorado School of Medicine. She was board certified in Colorado in 1974.

Golden appointed to Board of Nursing

Betty Golden, director of nursing at MCG Hospital, has been appointed to the eight-member Georgia Board of Nursing.

The appointment, by Governor Joe Frank Harris, is to a three-year term.

Golden is an associate administrator of MCG Hospital in addition to her position as director of nursing.

Responsibilities of the Board of Nursing include reviewing educational programs, preparing persons to practice nursing as registered professional nurses, and examining and licensing professional nurses.

Golden, a graduate of the MCG School of Nursing, has been in her present position since 1971, having joined the MCG staff in 1961. She also has served as assistant director of nursing at Gracewood State School and Hospital.

Nursing starts grand rounds

Nursing officials at MCG have given new life to an ancient form of education.

As a new community service, the MCG School of Nursing and the Department of Nursing at MCG Hospital are sponsoring Nursing Grand Rounds, a monthly forum through which members of the CSRA nursing community can exchange knowledge and information about nursing practices.

"Grand rounds started when education was still apprentice in nature," says Jane Echols, assistant professor and coordinator of the Nursing School's Department of Nursing Administration. "It was a way to demonstrate to the next generation how things were done."

The idea to start such an activity at MCG was inspired by a statement President Jesse Steinfeld made in an interview in the spring 1984 issue of **MCG Today**, says Echols. Steinfeld said: "I believe that the Medical College will respond to the health needs of the citizens of the state with new and significant innovative teaching, research and delivery programs. I believe (MCG) has both the spirit and the opportunity for exciting new programs in a number of areas within its mission. . ."

Each session has a nurse practitioner and representative from nursing education presenting the care of a patient admitted to MCG Hospital. "The audience not only hears what's been tried and what works, but why," says Echols.

"This is an excellent way for us to nurture a collegial relationship between nursing practice and nursing education," says Golden. "We do have advanced practices at the Medical College and the opportunity to take care of some patients that may not be available in other CSRA hospitals — for example, multitrauma care."

Beckham new AART president

Richard W. Beckham, professor and chairman of MCG's Department of Respiratory Therapy, has recently been elected president of the American Association for Respiratory Therapy.

As the president of the AART, Beckham will be the spokesperson for approximately 25,000 constituents. He has spent the last 15 years working at the affiliate and the national levels of his profession.

DEATH by Cigarettes

Health professionals warm up to the issue

by Julia Thornton Wilson

"It would have been likely and not inappropriate for a physician thirty or forty years ago, if he were successful, to be reasonably obese, sedentary, and a moderate user of alcohol and tobacco. Whether you realize it or not, with your entry into the health professions, even as a student, you have become a role model for your patients and for other health professionals . . . . You must act the part of a physician, dentist, nurse or other professional. It is inappropriate for you to advise others to give up smoking especially if you give that advice while puffing on a cigarette. . . ."

Dr. Jesse L. Steinfeld, MCG president,
in his speech to the graduating class,
Commencement 1984

Despite more than two decades of reports clarifying the link between cigarettes and disease, smoking remains the number-one preventable cause of premature death in the United States, and many health professionals are starting to warm up to the issue.

How it all started

The cigarette first came to the United States early in this century when it was brought here from Brazil, says Dr. Rick Richards, assistant professor in the Department of Family Medicine at MCG. With the advent of cigarette-rolling machines, mass production was made possible and distribution began.

The cigarette, which was made increasingly popular by advertising, took on a slightly patriotic flavor during World War II, when it was included in C-rations for soldiers, and tobacco companies encouraged folks back home to send cartons of cigarettes to the boys overseas.

The popularity of smoking had caught fire.

Disease rates wafting upwards

During the ensuing years, indications began appearing that all was not well — literally — with cigarette smoking, as disease rates of smokers began to rise.

In 1919, an entire medical class at Washington University's Barnes Hospital was asked to witness the autopsy of a man who had died from lung cancer; the disease was so rare the professor believed none of the students would ever see another case.[1] In 1985, it is estimated that over 100,000 Americans will die from this cancer, with smoking cited as the major cause.

Altogether, smoking related illnesses cause more than 325,000 premature deaths in the United States each year, a death toll of about 900 victims a day. As more women light up, their disease rates increase as well; lung cancer is now bypassing breast cancer as the main killer of women.

What happens when a cigarette goes up in smoke? The smoke itself is a complex mixture of over 6,000 ingredients, a number of which are known to be detrimental to the human body. The main components of smoke are nicotine, which affects blood pressure and fatty acid levels in the blood; carbon

In the Army . . In the Navy . . In the Marine Corps . .
Camels are the favorite
28% Less Nicotine
CAMEL
THE CIGARETTE OF COSTLIER TOBACCOS

monoxide, which decreases the blood's capacity to carry oxygen; and tar, a particular substance that contains at least 30 cancer-causing components.

In addition to causing major diseases, smoking lessens immunity to other health problems. "One-third to one-half of the illnesses that come through a physician's door can be related to smoking," says Richards. The dangers of "passive smoking" are apparent in the fact that the children and spouses of smokers are more likely to experience sickness. "For example," says Richards, "the child with repeated ear infections or colds is more likely to have parents who smoke."

In the hospital setting, "of the patients who suffer from surgical complications, most are smokers," says Pam Rosema, BSRRT, technical director of the Department of Respiratory Therapy in MCG Hospital. Smokers have a higher rate of becoming "repeaters" who must come back to the hospital because their acute problems become chronic, she says.

Dollars for Death

In addition to producing high rates of illness, smoking takes a toll on the national pocketbook. An estimated $15 billion spent each year treating smoking-related sickness, plus approximately $34 billion in productivity loss, adds up to a hefty $49 billion price tag attached to smoking.[2]

What does this mean to the average non-smoking, working-age adult? An annual economic burden of over $100 in taxes and health insurance premiums that must be paid to finance medical treatment for the victims of smoking.[3] This figure does not include the extra costs added to house insurance (because cigarettes are the leading cause of residential fire deaths in the U.S), motel bills (because smoking is the leading cause of fires in motels), and auto insurance (because smokers have more accidents).

Smokers themselves pay a great deal for their addiction to lighting up. American consumers spent almost $25 billion for cigarettes in 1982; in 1976, smokers spent one and a half times more on cigarettes than the total U.S. population spent on drugs and sundries.[4]

Smoking rates decreasing

As the connection between smoking and illness has become more apparent, there has been a decrease in the percentage of Americans who smoke.

In 1964, when the surgeon general released the first report on smoking and health, 42 percent of Americans smoked; in 1984 that figure had changed to 33 percent, according to the U.S. Department of Health and Human Services. The main decrease was in the rate for male smokers; the female percentage decrease was small. The rates for girls ages 14 to 17 are going up, says Richards.

To their credit as health promoters, health professionals led the way in reducing their own smoking. Today, fewer than 15 percent of physicians and dentists smoke; less than half the smoking rate of the general population.

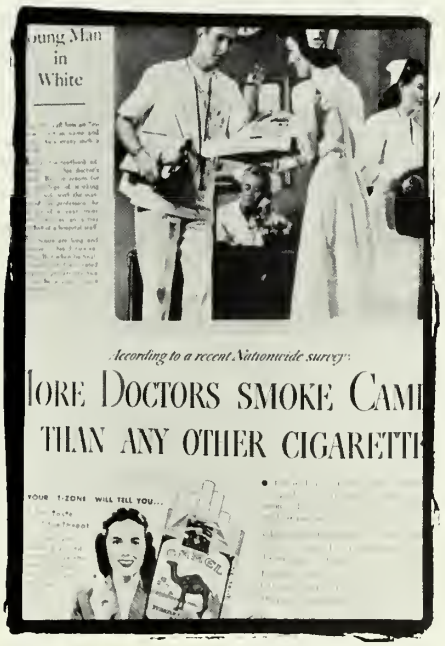
Advertising's smokescreen

With so many people recognizing the value of a non-smoking lifestyle, why are others, especially adolescents, taking that first puff?

"Advertising," says Richards. "There's no question about it. The usual excuse for that age is peer pressure, but peer pressure is created by Madison Avenue." He dismisses the idea that tobacco companies aren't directing their ad campaigns, often subtly, toward adolescents. "There were 20 paid Marlboro ads in the movie Superman II," he says. These included subtle and not-so-subtle full-screen views of Marlboro signs, and the fact that Lois Lane would smoke only Marlboro cigarettes. Most new cigarette customers come from the 8- to 21-year-old age group,[5] probably the prime viewers of this type of movie. How many children leave the theater with smoking and heroism inextricably linked in their minds?

Advertising has played an ever-expanding role in the smoking saga since those patriotic encouragements during World War II. Cigarette ads, whenever possible, linked smoking to glamour, success, and health.

Amazingly enough, early ads often used medical figures to promote different brands, and prestigious medical journals carried cigarette advertisements until the 1950s. Fortunately, the only medical figure now associated with cigarettes is the surgeon general whose warning appears on every package.



Despite this advance, and the fact that cigarette ads were banned from the broadcast media in 1970, cigarette manufacturers now spend $1.5 billion per year on advertising and promotion; this includes billboards, sports promotions, and magazine ads, to name a few.

As health claims become more difficult to ignore, advertising changes with the time, turning the smoking issue into one of "civil rights" for smokers, and capitalizing on new markets. The Virginia Slims "You've come a long way, baby" campaign is just one example of an expanded emphasis on the female consumer market.

As for the "open debate" regarding the true effects of smoking, Richards says this is just a smokescreen created to divert attention away from the real issues. "There is nothing left to debate," he says, "the research has already been done."

Surgeon generals — benefical to health

Surgeon generals have played an important role in gathering and disseminating the scientific information that had identified smoking as a health threat. In 1964, Surgeon General Luther L. Terry, MD released the first report on smoking and health. In an article in the December 1983, New York State Journal of Medicine, Terry states, "The report hit the country like a bombshell. It was front page news and a lead story on every radio and television station in the United States and many abroad. The report not only carried a strong condemnation of tobacco usage, especially cigarette smoking, but conveyed its message in such clear and concise language that it could not be misunderstood."

Later, MCG President Jesse L. Steinfeld's 1969-73 tenure as surgeon general was notable for the evidence gathered about women smokers, the effects of smoking on the unborn, and passive smoking.

During a 1971 speech to the Interagency Council on Smoking and Health, Steinfeld stated, Fetal wastage is a terrible tragedy, as is the loss of an infant, and let me suggest that certain purveyors of cigarettes stop making

awkward remarks about how some young mothers in childbirth might welcome smaller babies. The mother who smokes is subjecting the unborn child to the adverse effects of tobacco and as a result we are losing babies and possibly handicapping babies. . . . The health professions must become more active in the smoking and health field."

Subsequent reports released by surgeon generals have concentrated on smoking's role in specific illnesses such as cancer and cardiovascular disease, with the present Surgeon General C. Everett Koop calling for a smoke-free society by the year 2000.

Doctors can make a difference

What can a health care professional do to help ensure this goal? According to recent studies, says Richards, a physician has more influence than anyone on helping a smoker become a non-smoker. One study reported in the 1982 Report of the Surgeon General showed that, of smokers who were interviewed at a chest clinic, 39 percent of the participants who were advised by a doctor to quit smoking were successful in this endeavor, while only 17 percent of those who didn't receive such advice managed to cease the tobacco habit.

Current methods used to help smokers stop are no-smoking classes, substitution of something like candy or chewing gum for cigarettes, hypnosis, acupuncture, and a new nicotine chewing gum designed to help overcome withdrawal symptoms.

"Basically, it's a very individual thing," says Jennifer Posey, BSRRT, assistant technical director of the Department of Respiratory Therapy in MCG Hospital. "You have to want to quit." She and Richards agree that quitting cold-turkey is probably most effective.

Counseling patients to start on a program of smoking cessation can sometimes be frustrating for physicians, says Richards. For one thing, it takes time to help the patient find the right method. And, smoking cessation intervention is considered patient education and is usually not covered by insurance, although this may change in the future. Finally, one irony is that patients may be exposed to hundreds of glamorous cigarette ads in the magazines they read in the waiting room as they wait to hear the doctor's advice about smoking.

To end this irony, Richards foresees physicians taking a more active role against smoking and the misleading way it is often portrayed in the media. "I see physicians going head to head with the Marlboro man," he says.

Cigarettes going out?

Already, a trend toward non-smoking is taking root. Smokers are becoming ex-smokers in increasing numbers, and fewer people are lighting up to begin with. As the risks of passive smoking become clearer, more efforts are being made to ensure clean air in workspaces and public places.

Corporations are starting to get involved with the smoking issue, says Richards. The National Labor and Relations Board has ruled that businesses can use smoking behavior as a criteria for employment, and many do so because they see the benefits of hiring non-smokers. Each year, an average business loses $750 per smoker in "down time" used to indulge in the habit. Smokers take an average of 15 percent more time off due to sickness, they retire earlier for medically related disabilities, and are more expensive to the company once retired, Richards says.

On the MCG campus, smoking policies have been set up for all buildings, including MCG Hospital, and cigarette machines have been removed. Smoking cessation classes have been conducted for the MCG community, and support was given to the national Great American Smokeout day in November.

Groups such as Students for Community Involvement (SCI), an organization of medical students who teach preventive cardiology to grammar-school children; and Doctors Ought to Care (DOC), an association of health care students and professionals who want to promote healthy lifestyles for adolescents, see prevention as a way to combat smoking. Richards, who serves as international president of DOC, says the recent "Emphysema Slims Tennis Classic" tournament in Augusta was held to draw attention to the problem of tobacco, alcohol, and drug dependency, and how such things are portrayed in the media.

"Heretofore, efforts (regarding smoking) have been to treat the diseases smoking causes, not prevent them," says Richards. "That will have to change." ■

References

1) Blum, A. "Alton Ochsner, MD, 1896-1981; He Cleared the Air." New York State Journal of Medicine, Dec. 1983, p. 1251.

2) Warner, K. E. "The Economics of Smoking: Dollars and Sense." New York State Journal of Medicine, Dec. 1983, pp. 1273-4.

3) Warner, K. E. ibid.

4) Warner, K. E. ibid.

5) Blum, A. "Medicine vs Madison Avenue." Journal of the American Medical Association, Feb. 22/29, 1980, pp. 739-40.

Cigarette ads courtesy D.O.C. Archives

One year after the 1964 surgeon general's report on smoking and health, an act was passed requiring all cigarette packages distributed in the U. S. to carry a warning that smoking may be a hazard to health.

Later, during MCG President Jesse L. Steinfeld's 1969-73 stint as surgeon general, the warning was reinforced to state: "The surgeon general has determined that smoking is dangerous to your health."

Latest on the smoking scene is the approval of four new warnings that will rotate every three months on cigarette packages.

These are:

— "Smoking causes lung cancer, heart disease, emphysema, and may complicate pregnancy."

— "Smoking by pregnant women may result in fetal injury, premature birth, and low birth weight."

— "Cigarette smoke contains carbon monoxide."

— "Quitting smoking now greatly reduces serious risks to your health." ■

TOOTH DECAY

A part of childhood dies

by John Donnelly

It has become more than isolated instances of dentists musing to themselves about not seeing as many cavities in children as they did 10 years ago and wondering if this could be the beginning of a national trend. Now there is proof, verified scientific data in refereed dental journals, that children are growing up with less dental caries than their older siblings had 10, or even five, years ago.

"From 1980 to 1984 there has been a noticeable decline in the number of children with severe caries problems," says Dr. David Myers, professor and chairman of the Department of Pedodontics in the School of Dentistry at MCG. "We are seeing about the same number of patients in our student clinic and they are the same ages as those we have been seeing in the past, so the reduction in tooth decay is the only thing changing."

The observations of Myers and the other pedodontists at MCG are borne out by two recent studies: one by the Robert Wood Johnson Foundation and the other reported by J. A. Brunelle and J. P. Carlos in the November 1982 issue of the *Journal of Dental Research*.

The Brunelle and Carlos article, which reports on a major study by the National Institute of Dental Research/ National Institutes of Health, compares studies of children from five to 17 done between 1961 and 1980. The results, the authors say "indicate a substantial decrease in dental caries prevalence and an increase in the numbers of caries-free children five to 17 years of age during the last decade." The results also reveal that 37 percent of the children surveyed had no caries whatsoever.

Along the same lines, the Robert Wood Johnson study found "the participants had dramatically less decay than had been expected."

Dr. Jefferson Hardin, associate professor in the Department of Periodontics, says there are several reasons for the decline of caries, and points out that the main ones, fluoride and the use of sealants, are preventive measures that have come into widespread use and acceptance in the past quarter-century.

"Fluoridation is the number one reason for the reduction in the amount of dental caries dentists are seeing," he says.

"Today it is possible to take a child born at MCG and raise that child caries-free to age 18. It is not that difficult to do," Hardin says. "A majority of the larger communities in the country have fluoridated public water supplies and even in those communities that don't, almost any toothpaste you buy these days contain fluoride. Add to this the fact that many school systems in the country have a fluoridated mouth rinse program, and you can see that it is hard to avoid the beneficial effects of fluoride."

Another method of caries prevention is the use of pit and fissure sealants: a resin-based substance that seals the microscopic pits and fissures on the chewing surfaces of the posterior (back) teeth.

One of the leading international researchers in the field is Dr. Eva Mertz-Fairhurst, associate professor in the Department of Restorative Dentistry. The principal investigator for the nation's longest-running study (seven years) on the effects of sealants, she says the study results have proved "sealants are not an interim measure. Sixty-six percent of the teeth which received the single application of sealants have remained sealed and therefore protected against caries throughout the entire study. The seven-year Augusta study gave credibility to the use of sealants as a preventive dental tool."

Mertz-Fairhurst was an invited speaker at the December 1983 National Institutes of Health consensus development conference on "Dental Sealants in the Prevention of Tooth Decay." A consensus statement was issued at the end of this conference which concluded that "the placement of sealants is a highly effective means of preventing pit and fissure caries." The published statement further concluded that sealants were "currently underused in both private and public dental health care delivery systems. . . . Expanding the use of sealants would substantially reduce the occurrence of dental caries in the population beyond that already achieved by fluorides and other preventive measures."

"Because fluoride works best on the smooth surfaces of the tooth, the extensive use of fluorides has decreased the amount of caries found on these surfaces which form the sides of the tooth," Mertz-Fairhurst says. "In contrast, the rate of caries on the tooth's chewing surfaces, where pits and fissures are found, has increased in the past 20 years and now accounts for more than 80 percent of all dental caries. This high percentage of dental caries in pits and fissures can be prevented by sealants."

The researcher has begun work on another sealant study, this one to find out if sealants can halt the process of caries. The goal was to discover whether or not sealing small cavities would cause the bacteria to die because they no longer have access to nutrients from the oral environment. It has been determined that sealing small cavities can actually arrest their growth. A third sealant study has been undertaken where sealants are combined with other restorative materials used for fillings. "This combined use of sealants and conventional restorative materials results in a smaller amount of drilling in a cavity so that more of the tooth's structural integrity can be preserved," Mertz-Fairhurst relates.

Preventive dentistry involves more than just protecting teeth against cavities. According to Hardin, "Dental disease patterns change in early adulthood. By age 30, a person may become a victim of periodontal, or gum, disease — infections which affect the tissues that support the teeth. If this is undiagnosed or untreated, it could cause the loss of individual teeth or set of teeth by the time the person is 50 years old. This can occur even though no teeth had been lost during childhood because of the affect of fluoride and sealants."

With all the advances in the control of caries, Hardin says dentists and dental researchers are now turning their attention increasingly to fighting gum disease. "The control of periodontal disease today is about where caries control was in 1944," he says.

One the problems faced by dentists in controling gum disease, according to Hardin, is that "we lack a theraputic 'magic bullet.' There are no drugs or vaccines yet available to control periodontal disease the way fluoride and sealants control caries.

"When a safe, effective anti-plaque, anti-gum disease medication becomes available as an over-the-counter product and when more and more of the population has reasonable access to this product, then we will have significant population-wide improvement in

the control of gum disease," the periodontist says.

Such a theraputic "magic bullet" is actively being sought for gum disease prevention. Research is being conducted on many chemotherapeutic agents in an attempt to identify drugs or chemical agents that will kill or supress the bacteria that cause periodontal disease.

As with the proper control of caries, all the "magic bullets" in the world will not control gum disease without the active participation of the patient as a "co-therapist" in its management.

"It is hard to modify patient behavior," Hardin says. "It is difficult to get them to stop smoking or drinking and get them brushing and flossing on a regular basis. But without the patient's help, the dentist's whole periodontal treatment plan goes down the tubes."

This is why Hardin and others in dentistry feel fluoride in the public water supply is a classical, almost perfect public health measure. Without having to do anything, people drinking fluoridated water reduce their chances of tooth decay in a safe, inexpensive and effective manner. Brushing and flossing are still very necessary, but numerous studies have shown that simply having fluoride in the water significantly reduces the risk of tooth decay. "To combat periodontal disease with the same effectiveness as we did caries, a method as simple as fluoride will have to be found. It is frustrating that such an agent is not available," Hardin says.

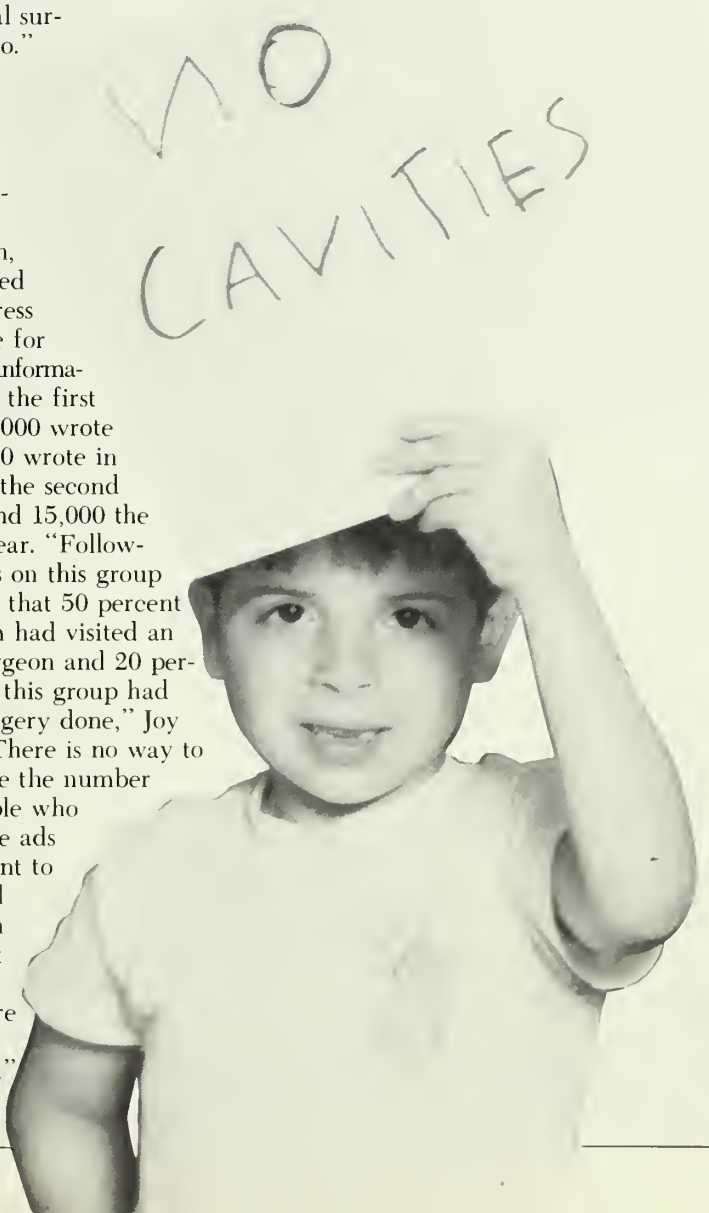
Studies show that there has been a 50 percent decrease in the number of cavities seen by dentists since the mid-1960s. This is the bright side. The dark side shows that 50 percent of the American population still do not seek dental care.

Dentists, with the aid of their professional organizations such as the American Dental Association, have for years sponsored public health promotion programs: "Ignore your teeth and they will go away" — brought to you by your local dental association. As with other campaigns of this nature, the main focus is to stimulate more people to seek professional examinations and to broaden public understanding of the nature of diseases of the teeth and gums.

A measure before the ADA House of Delegates in the fall of 1984 proposed a $37.5 million, three-year, prime-time television public education campaign on periodontal disease. If approved, it will be the largest public information program of this type ever attempted.

Dr. Edwin Joy, chairman of the Department of Oral and Maxillofacial Surgery at MCG, has an insider's knowledge of this type of promotion program. As chairman of the public relations committee of the American Association of Oral and Maxillofacial Surgeons, he headed a three-year promotion effort to inform people of what this dental speciality does.

"We were astounded at how well the program worked," he says. "After a year and a half, a survey was conducted and it was found that there had been a 15 percent change in the number of people who were aware of what oral and maxillofacial surgeons do." The ads, targeted to women with children, contained an address to write for further information. In the first year, 3,000 wrote in; 5,000 wrote in during the second year; and 15,000 the third year. "Follow-up calls on this group showed that 50 percent of them had visited an oral surgeon and 20 percent of this group had had surgery done," Joy says. "There is no way to estimate the number of people who read the ads and went to the oral surgeon without writing for more information."



As noted earlier, half of the people in this country do not seek dental care. While the prevalence of caries is being reduced and strides are being made by researchers to find methods for dealing with periodontal disease, the dental profession continues to seek new ways to reach the people not receiving treatment. "We have to stimulate these people to have something done about their dental care," Joy concludes. "They need to realize they are the primary beneficiaries of the care they receive."

Bringing this portion of the population into the dental setting would mark a real success in the quest for the prevention of dental disease. ■

New academic VP

"Wide receiver on a winning team"

by Brenda Drake

Dr. Tom Zwemer is a man who was destined to be in the world of academics. However, his route to the position of Academic Vice-President at MCG may have been unique.

A large, energetic man with a pleasing personality, Zwemer talks of his father in a voice full of respect and admiration. "My father, a general construction contractor, lost everything during the Depression except his family, his independence, his sense of fair play, his courage, and his fierce desire to see his children succeed. 'Never be dependent on another man,' was the advice he often gave to me and my brother and sisters.

"As far as my father was concerned, education was the only means to a successful career, and the health professions were most likely to offer independence. Given our scientific interests, mechanical inclination garnered from on-the-job training in dad's brick yards, and the encouragement of our local dentist and our itinerant orthodontist, my brother, Jack, and my sister Betty and I decided on a career in dentistry. My sister Johanna, the most independent of all, decided in favor of a business career."

While studying pre-dentistry at Emmanuel Missionary College in Michigan, the three became intrigued with academic life, which was to be reinforced throughout their professional training.

World War II brought a big detour for Zwemer. He was drafted into the army shortly after his brother began dental school. The army promised him his dental education through the Army Special Training Program. All would have been fine if they hadn't "lost" him for four months in the piney woods of Fort Benning, Georgia. By the time they found him, it was four months past the beginning of his dental class, so he was sent to the South Pacific to help General MacArthur return.

Zwemer finally entered the University of Illinois College of Dentistry in the fall of 1946 after his brother graduated in June. His sister Betty had caught up with him during the war years and was slated to enter the University of Michigan School of Dentistry, but transferred to Illinois to study with him. Together they worked evenings and week-ends as research assistants to Dr. Isaac Schour. Dr. Schour became their mentor, and through him, they both became more and more interested in combining their professional training with academic life. During their senior year, Jack returned to Illinois for graduate training. This furthered the interest of all three in graduate education and a life of academics.

The years following graduation from Illinois were exciting and eventful. Zwemer taught at Marquette University School of Dentistry for two years and then went to Northwestern University Graduate School to study under Dr. John R. Thompson and earn his M.S.D. degree in Orthodontics. He returned to

Marquette University to establish a Cleft Lip and Palate Treatment Team at Milwaukee Children's Hospital and to Chair the Department of Oral Rehabilitation. Later he was invited to join the faculty of the School of Dentistry at Loma Linda University as Chairman of the Department of Orthodontics.

In 1966 Dr. Zwemer received a phone call from Dr. Jud Hickey with exciting news. "He said they were planning to build a new dental school in Augusta and he wanted me to join him as Assistant Dean for Clinical Affairs."

This was a challenge Zwemer couldn't refuse: the opportunity to have major input in establishing a new school, recruiting first-rate faculty, and developing a creative curriculum to turn out first-class graduates to improve the dental health of the people of Georgia.

The rewards have been great for Zwemer. He has seen the completion of the $8 million dental clinical services building and graduation of 11 classes in dentistry since 1973. Dental hygiene, dental assisting and dental technology were developed and eight postgraduate residency programs were established. All are fully accredited and many are nationally known and acclaimed.

In 1984 the President of MCG, Dr. Jesse Steinfeld, appointed five staff officers to serve as advisors to him and to assist him and the deans of the five schools in a new era of planning and accomplishment for the college. This was a new challenge for Zwemer, to be part of a larger academic enterprise of great worth with a great future.

"As chief academic officer, I am charged with advising the President and assisting the deans and their faculties in fulfilling the teaching mission of MCG. I also have a line function in the management of several divisions on campus: the Library, Health Communications, Educational Research and Development, and Continuing Education. In addition, the budgetary functions of the Office of the Faculty Organization are managed through my office.

"I also serve as the Affirmative Action/Equal Employment Opportunity Officer of MCG. In my capacity as academic and affirmative action officer, I work closely with the deans in the recruitment, appointment, evaluation, promotion and tenure of faculty. I also work closely with the Director of Student Affairs and the Register and their staffs in the recruitment, support and evaluation of students."

"The question today is not how hard have you worked, but what have you acomplished? ... acomplishment in the classroom is equal to or superior to acomplishment in any other area of academic life and should be rewarded."

Zwemer credits his success to 35 years of academic experience working with people like Isaac Schour, John Thompson, Jud Hickey, Harry O'Rear, Bill Moretz, and now Jesse Steinfeld. An academic officer, according to Zwemer, "should have a vision spanning three generations. It may take a generation of experience in an academic health center to acquire the historical perspective to survive the sudden shocks and to take advantage of the unexpected opportunities which confront today's administrators. Furthermore, such a person would have the skill and rapport to serve today's faculty and students and yet have the ability to look a generation ahead and constructively plan for the needs of the future."

He points out that students entering high school this fall may be applying to MCG as early as 1987 and there is little time to get ready for this new crop of improved eager students.

"Fortunately we have an excellent faculty and a good faculty mix. At least 40 percent of our faculty will still be actively teaching in the year 2000. Twenty percent of our faculty in the year 2000 are already in professional school."

What are the goals of the new Vice-President for Academic Affairs?

"High on my agenda are five goals: strengthen the merit system of faculty recognition, upgrade curriculum management procedures, strengthen student retention programs, increase faculty participation in patient care, and enhance their scholarly activities. I have many others but my main goal is high quality performance in the classroom by both teachers and students. We attempt to start with first magnitude star qualities in both our faculty and student selection. Then we attempt to provide both faculty and students with the resources necessary for high performance. We intend to reward both faculty and students for achievement.

"The question today is not how hard have you worked, but what have you accomplished? I believe that accomplishment in the classroom is equal to or superior to accomplishment in any other area of academic life and should

be equally rewarded," says Zwemer.

Zwemer's well-thought-out views reveal him to be a philosopher, especially in areas that touch on his favorite topic: education.

On the subject of the effective teacher he says, "It was Edgar Guest who wrote, 'I would rather see a sermon than hear one any day.' This desire is equally true for teaching. The effective teacher must be a competent, ethical and empathic role model. Learning is the happening in the encounter between a receptive mind and a new idea. The role of the teacher is to see that these happenings occur on more than a random basis.

"The process of education has no relationship to cloning. It is designed to produce individuals: people who can think and act independently. People who can do more than merely reflect other men's thoughts and deeds. That is why I am so proud of the rich variety of our faculty and students. They bring individually to our institution and thus by their very presence enhance the learning environment.

"Among our faculty and students are doers, scholars and thinkers. It is the doers for which society has the greatest affinity. We all can identify with those who produce something tangible and useful. Since there is so much to be done in our society, it is obvious that we need lots of doers, yet we need doers who have an appreciation for both scholarship and thinking.

"The contemporary health professional is a doer who can think logically and act rationally based upon the accumulated knowledge and skill in the art and science of health care delivery.

"It is the scholar with whom society is the most comfortable, for the work of the scholar is to bring together all that is known about a particular subject. Thus, the scholar generally brings his subject and his audience to a consensus to which all are not only impressed but comfortable.

"It is the thinker with whom we are most uncomfortable, for the thinker tends to go beyond established thought and practice. The thinker tends to disturb the status quo. The thinker is the change agent. While we all talk about change, we generally are talking about very little change, seldom more than rearranging the furniture. The thinker goes beyond convention and ventures beyond the known world and thus disturbs us all.

"The process of education has no relationship to cloning. It is designed to produce individuals: people who can think and act independently... who can do more than merely reflect other men's thoughts and deeds ..."

"Of course, occasionally, one finds a person who is at once a thinker, scholar and a doer; but generally, it is the mix of these types which make up the enterprise we call a university. It is the task of the President, his senior advisors and the deans to ensure that the university is hospitable to the thinkers as well as to the scholars and the doers. The thinker, in turn, is in debt to the doer. For while the thinker is willing to let his mind explore, who but the doer is willing to set sail on a new, untried course? Furthermore, the thinker is in debt to the scholar, for without him the thinker would neither know the limits of knowledge nor the directions which may prove fruitful. In turn, the scholar is in debt to the thinker for without new thought there would be no new questions or new ideas to examine for which a new consensus may be sought.

"The healthy university is therefore a community of thinkers, scholars and doers working together in a common cause to improve the lot of mankind in their generation and in the generations to come." According to Zwemer, "The chief academic officer is dedicated to seeing that the academic community works well together and is rewarded for its efforts not only in the currency of its isolated realm but in the eyes of all of its constituents."

What are the satisfactions of serving as an academic administrator? Zwemer sees senior academic officers as finding their success and reward in the achievement and recognition of the faculty and students they serve.

The academic world is exciting to Zwemer because of its competitive challenges. However, he compares the striving for excellence as the competition between two wide receivers on the same team competing with each other for the common good of team success, rather than the competition between the Miami Dolphins and San Francisco 49ers. In education, we have the opportunity for a win-win situation rather than a win-lose situation. To succeed in teaching and learning means that we all have been enriched."

With the energy and enthusiasm that Zwemer puts into his work, one gets the impression that he enjoys being a wide receiver on a winning team. ■

Compassionate use of animals vital to research

by Mandy Roth

Last fall, a movement that began in Victorian England infiltrated the sanctity of research at MCG, virtually halting a research project in Dr. Barry Goldstein's laboratory.

Goldstein, assistant professor of pharmacology and toxicology at MCG, has a research contract with the Department of Defense. A phone call in early October alerted him to the following news: A directive had been issued; investigators with Defense Department contracts should not order more dogs or cats for research purposes until further notice.

Alarmed because these animals are necessary for his research, Goldstein called his department liaison.

"I asked him, 'What's going on?' " said Goldstein.

"We don't know," was the reply.

What was happening, it turned out, was that the animal rights movement had made headway into government bureaucracy, and for the first time, into the laboratories of MCG.

Animal experimentation is the lifeblood of biomedical research. An increasingly vocal and sometimes violent group would like to put an end to research on living animals. As antivivisectionists and animal rights activists progress in their efforts, it's difficult to ignore the impact they could have on the future of medicine.

Goldstein's dilemma has been resolved. After several months he was notified that his project could continue. Although Goldstein's research has resumed, his experience offers a foreboding glimpse into what could happen if

"There would be a great deal of sacrifice in human life at present and in the future if we cut animal research."

the animal rights movement proceeds in its ultimate quest and stops animal experimentation altogether.

"It would be devastating to science," Goldstein said.

When discussing the need for animal experimentation, researchers are quick to point out medical advances made possible through this type of research. Animals have long been necessary for drug studies and developing new surgical techniques. Human organ transplantation was preceded by years of research on dogs, pigs and monkeys.

"It's ethically undesirable to experiment on humans," said Dr. Lowell Greenbaum, vice-president for research. "Animal models are required because experiments have to be verified and quantified." When suitable animals are unavailable, progress is slowed, he said. Research on multiple sclerosis has been hindered, for example, because appropriate animal models don't exist.

"Most of what we know about the function of the body has been applied to humans from animal experiments," said Dr. Susan Porterfield. Porterfield plays a key role in animal research at MCG. She is chairman of the Committee on Animal Use in Research and Education (CAURE), a powerful conglomerate on the MCG campus which has the ability to deny requests for experimental animals based on a researcher's proposed procedures. CAURE operates with three permanent committee members plus six faculty serving two-year terms, each working with a two-member subcommittee.

The committee is mandated by the National Institutes of Health to obtain grants and contracts, but MCG has taken measures beyond government demands. "This campus has tried to stay ahead of NIH guidelines," Porterfield said. Researchers must file annually for approval. Their methods must conform to regulations spelled out in volumes of paperwork, spanning issues from ventilation to euthanasia.

It is not, Porterfield insists, a rubber stamp committee. She estimates that 10 percent of the initial requests are turned down, a move that creates hostility among a few investigators "because they do expect it to be a rubber stamp committee." She added though, that "generally, we don't encounter any resistance. Most people doing research are concerned about animal welfare." Scientists also are conscious of the necessity to monitor animal research. A single case of abuse could jeopardize the institution's accreditation and result in a violation of the federal Animal Welfare Act. "We're under a lot of pressure to police effectively," Porterfield said.

When requests are denied, the committee usually suggests alternatives which will make the proposal more acceptable. The most common cause of rejection is the method of anesthesia. Often, she said, this occurs because better procedures have been developed or the proposed method is inappropriate for a particular species.

Some researchers do voice complaints about the delay created by the necessity to obtain committee approval. It takes about three weeks to process a request, said Porterfield, a period she terms an "inconvenience, not a major delay." Dr. Brian Morgan of Columbia University in New York claims this delay is good for animal welfare. In Volume 406 of the Annals of the New York Academy of Sciences he said, "If someone comes up with a brilliant idea one morning and wants to go ahead and investigate it, he should be made to process it through a review committee." As with review processes for human experimentation, the researcher is forced to "reflect on that idea for three or four weeks while he gets it through the committee. I don't think there are any instances whereby that three- or four-week reflection or delay has done any harm to the progress of biomedical science."

At the heart of animal research at MCG is Dr. Malcolm Kling, director of Laboratory Animal Resources and Biological Safety, a job he's held for the last 17 years. Kling is one of three full-time veterinarians at MCG and oversees an animal care staff of 14 people. He is one of the permanent members of CAURE.

Several cartoons hang on a bulletin board outside his office, one featuring the Wizard of Id. In the comic, the Wizard approaches a man selling birds.

"I want two pigeons," he says.

The bird vendor queries, "You're not going to experiment on them, are you?"

The Wizard replies, "Rumors of my cruelty have been greatly exaggerated. They're for supper."

Despite this display of humor, Kling is dead serious about his role and the animal research issue. "Each biomedical institution has a responsibility to the community and to ourselves to say we are looking at ourselves. We must have an animal research committee, and if we must have it, let's do it right," he said.

Kling's responsibility is to ensure that all animals are maintained properly, cared for and properly used. Daily, he or his staff checks on all animals in the vivarium. He will not tolerate suffering. If necessary, he said he would remove an investigator's research colony if the animals are being mistreated. Not only is he legally bound, he feels he has a moral obligation as well. Fortunately, this situation has not yet arisen. It does bring up the question of how MCG would deal with offenders of CAURE policies.

If offenders are identified, Greenbaum said as vice-president for research, he would suspend the research rights of the faculty member until the situation clears up. But ensuring that CAURE mandates are adhered to is not an easy task, he admits. "It's very difficult — impossible — with thousands of animals being used, to monitor each experiment. The faculty has to take that responsibility to observe appropriate ethics, to educate technicians and students about the appropriateness of conduct in dealing with animals."

Compassion, of course, is not a prerequisite for research; however, some maintain that it helps keep things in perspective.

"Everyone in research should have a pet," Kling said. "If I can go home and sit and have a talk with my dog, things are going OK." Other scientists echo his sentiments.

"I have a dog," Goldstein said. "I don't enjoy killing animals. I do it because I have to. Let's face it, it's a very

"Everyone in research should have a pet. If I can go home and sit and have a talk with my dog, things are going O.K."

emotional issue. We're doing it for knowledge, not in vain. We're probably more humane and think about it a lot more than most people do when they step on a bug. We're very attuned to the pressure outside, but also to our own feelings."

"A lot of people picture us as mad scientists," said Porterfield. "We are very conscious of sacrifice in the course of our experiments." Not only is sacrifice an issue, but great lengths are taken to minimize suffering, she said. "The pain in most animal experimentation is limited to that associated with an injection. In most experiments done at MCG the entire experiment is conducted while the animal is under the anesthesia and the animal is sacrificed without ever regaining consciousness." In addition, she added, "A lot of things that are considered unethical in animal experimentation are considered ethical in humans."

Greenbaum shuns the accusations of animal rights activists who imply that animals suffer in research. "They should look first in their own backyards," he said. "Euthanasia is a very important part of the experimental process. Research animals are sacrificed in a most humane way. That's not the case in pounds where most animals are sacrificed in a great deal of pain."

Scientists, in fact, have played pivotal roles in developing legislation to protect animals. Greenbaum was one of several researchers nationally who participated in writing the 1966 Animal Welfare Act. "Researchers felt as strongly as antivivisectionists that it was very important to care for animals in a laboratory setting," he said.

Vivisection opponents have suggested using alternate models for experimentation such as computers or amoebas. "If we knew all the information about functions of the body to put into a computer, it would be great," said Porterfield. "We don't have all the variables. If we knew that much, we wouldn't need to do the research." The suggestion of using amoebas and bacteria is unacceptable to most scientists because these forms of life don't have the physiological properties of the human body. Greenbaum applauds attempts to explore the use of alternative experimental models, but adds, "The use of animals must continue if we are to progress in the attack on diseases."

MCG has been fortunate in avoiding the wrath of radical animal rights groups. This may be due, in part, to community attitudes toward the necessity of animal research, but even as close as Atlanta, there have been demonstrations. One issue, which could very well threaten MCG, is the use of pound animals. There has been a push nationwide for legislation which would limit researchers to purchasing dogs and cats from animal breeders. The main objection by the research community is that this would escalate the cost of experimentation. In addition, Kling said, if scientists are required to obtain their animals from breeders, "this will result in an increase in the total number of dogs killed at the pound (which can die painfully) and those bred and used specifically for research."

MCG does use pound animals from Richmond County, but only after a lengthy quarantine process. The animals MCG purchases are those next in line to be sacrificed. Then, they are kept an additional two weeks. Most of these animals have been abandoned, said Kling.

Kling does receive calls from members of the community about missing pets. When this happens, he explains how our animals are obtained and then invites the caller to the vivarium to take a look. Not once has a lost pet been identified.

Kling's open attitude has probably done much to dispel public fear. Other measures have been taken to educate the public on a larger scale. The public relations committee of the School of Medicine, which meets regularly with members of the local media, devoted one session to the necessity for animal research. This effort later resulted in an article and editorial in the local newspaper, indicating support for MCG's animal research programs. In addition, internal efforts are planned. Greenbaum said seminars on ethical conduct in research will be scheduled for faculty.

It might seem appropriate to teach ethical conduct in animal research to medical and graduate research students. Dr. Richard Martin, associate professor of humanities at MCG, said this topic is not discussed in MCG's humanities classes. Leafing through biomedical ethics in literature, he said he "couldn't find antivivisection mentioned. It simply isn't an issue. So-called animal rights isn't discussed. Perhaps it should be."

In Kling's circles, however, the issue of animal rights is addressed more frequently than in the past. There are a growing number of articles and books on the topic and it is discussed at conferences. "The real pressure is being brought from outside groups," he said. "It's causing us to think and it's never wrong to think."

Ethical standards are part of the educational process, Goldstein said, even if they aren't formally addressed. "Where do you get it from? You get it from within; you get it from your mentor; you get it from good scientists; you get it from the people around you; you have to instill it in your graduate students. It's something we have instilled."

In Western civilization, Martin said there is a "presupposition of human supremacy when we start comparing human lives with non-human lives. The alternative is rather distasteful: We're talking about extending human suffering. There would be a great deal of sacrifice in human life at present and in the future if we cut out animal research. The power of research is greater than the power of animal rights."

He is not suggesting that animals be neglected. "Animals we use in research deserve respect and protection from needless suffering," he said.

In today's world, Martin feels the worries of animal rights activists are misdirected. With the advent of technological advances such as the artificial heart and cross-species transplantation, more animal research is necessary before human lives are put at risk, he said. "The real ethical issue in medicine today is when do we get to the point where we know enough about a procedure to progress to human beings?" ■

Occupational Health

Whose business is it?

by Karen Williams

Ann was tired — she had worked a long weekend as a packer in a local plant so that she could pay her rent and car payments while attending college. The long hours and hard work often caused her to feel tired and irritable, and she envied those students who did not have to work full-time and go to school. But student aid was difficult to obtain and she really had no choice but to work in a factory until she finished her education.

It was 5 p.m. Saturday and she had only two more hours to go.

Suddenly, without warning, a nearby forklift broke and several 15-pound boxes fell upon her. Luckily, after a visit to the emergency room, she learned that her external and internal injuries were not very severe. With pain killers and rest, she recovered. Others are not so lucky.

Who is responsible for this accident? Ann, because she willingly works in a plant? Management, because they did not observe safety standards, because health and safety standards in industry are not rigorously enforced? Or the general public, because of their apathy?

More importantly, how can we ensure that this does not happen again? What steps can industry take to guarantee healthier workers, and what is the leading role that our medical profession can play in this solution?

In general, does industry want healthy employees? Of course, they do. It is clearly in the interest of every employer to have healthy employees.

But what is health? This question has been debated since ancient times. Pericles in the fifth century B.C. gave us this definition of health: "Health is that state of moral, mental and physical well-being which enables men to face any crisis in life with the utmost facility and grace."

Therefore, from the point of view of the employer, a healthy employee is one who is on the job and able to meet the challenges of the task. Health is positive and it implies motivation on the part of the employee. Health is not just the absence of disease. A healthy employee is one who is well-motivated and happy in his or her work.

Just how far is the employer willing to go to have healthy employees? "Until very recently, the responsibility that employers had for their employees was poorly defined," says Dr. Ernest B. Altekruse, associate professor in family practice at the Medical College of Georgia and one who has worked in the area of occupational health for many years.

Until the mid-nineteenth century there was no system of factory inspection for the detection of industrial hazards and no laws regulating working conditions. Then in 1852, Massachusetts passed a law regulating safety devices for steam boilers and in 1877 a law was introduced in the legislature requiring dust removal in the textile mills.

The next step for occupational medicine to take was in the area of occupational prevention of illness. Although Hippocrates wrote about lead poisoning and how to treat it more than two thousand years ago, very little was done in the area of preventing occupational diseases until this century.

By 1900 there were only about 200 reports and articles published on occupational health. In the United States, both federal and state governments were slow to press for measures for the control and prevention of industrial diseases. The general perception was that a workman was simply out of luck if he became ill as a direct or indirect consequence of his occupation.

One industry in particular, coal mining, was very hard hit by industrial illness. In 1935, the first major study of anthraco-silicosis among hard coal miners was made in Pennsylvania by the U.S. Public Health Service. When mining machinery began to be used in 1950, the increase of dust in the air caused a corresponding increase in the incidence of pneumoconiosis in workers. In fact, at that time, the death rate for miners was twice that of all other male working populations.

Nineteen years later, Congress, under pressure from the unions, passed the Federal Coal Mine Health and Safety Act in order to eradicate this occupational disease occurring in coal miners.

Then in 1970 the Occupational Safety and Health Act (OSHA) said that industry has a "general duty" to provide a safe and healthful workplace for workers.

The effect of the law has been to increase the responsibility of industry to prevent accidents and illnesses from happening because of dangers in the workplace.

"The problem is complex," says Altekruse. Industries not only have to be concerned about the possible bad effects of raw materials and combinations of raw materials on the workers, they also have to worry about the effects of processes, products, and waste materials, and how they are disposed of.

"There are over 67,000 different chemicals used in industry today. Many are potentially dangerous, and when one considers the various combinations of those chemicals that may occur, intentionally or accidentally, the possibilities are astronomical.

"Only recently," he adds, "have scientists become aware that workers could get sick from working with certain substances, like asbestos which evidence suggests may cause cancer many years after exposure. Illness is becoming as big a concern to industries as injury."

Occupational medicine is concerned with any potentially dangerous aspect of the workplace: mechanical exposures such as vibration; physical exposures to heat and noise; chemical toxins; biological dangers; and emotional problems, such as stress which can result in physical illness, alcoholism and other difficulties.

"The goal is to prevent injuries and illness that are work-related," says Al-

tekruse. "Since that ideal is not yet possible, we try to minimize occupational illnesses to reduce work-related diseases."

Today many industries have access to occupational medicine teams consisting of an occupational medicine physician, a nurse, a toxicologist, a safety engineer, and an industrial hygienist.

Progressive industries know that it is to their advantage to be concerned about the safety and welfare of their employees. It is economically advisable for the company to have a safe and healthy work environment.

A healthy employee is more productive, and happier in his or her life and work. From an employer's standpoint, good health for the employee leads to increased production, less absenteeism, less insurance costs, higher morale among workers, and less early retirement by valuable experienced workers.

Workers and managers are realizing that when they meet each others' needs, they are both more successful.

The Japanese have demonstrated that higher levels of physical fitness and morale are related to increased production. Being hired by a Japanese firm is like becoming a member of the family; most employees are hired at a young age and remain with the same company throughout their working lives.

American companies are beginning to adopt this concept. One step they have taken is to establish occupational health programs for their plant. These programs depend upon the occupational medicine physician.

"An occupational medicine physician," says Altekruse, "monitors for those particular illnesses and injuries related to the plant. And although he or she still acts as a 'finger wrapper,' dispensing first aid when needed, the primary function of the occupational medicine physician is to identify diseases among workers of his plant, whether related to work or occurring from natural causes, and send the worker to an appropriate specialist in

the community."

Altekruse stresses that although the occupational medicine physician may send workers to the hospital, he seldom sees them as private patients. The occupational medicine physician refers ill or injured workers to an expert consultant for work-related diseases and accidents.

Occupational health professionals have the opportunity to be participants in impending changes in health care practices. "Just within the last 10 years," says Altekruse, "people have become very interested in their own health and in preventive medicine."

Plants often sponsor health promotion classes for smoking cessation, hypertension control, diabetes management, nutrition and weight control, stress management, and exercise.

"Today," says Altekruse, "smoking cessation classes are economically desirable for many plants. Smoking has been documented as a frequent cause of accidents at a plant. Not only may the classes help to prevent accidents and lung diseases among workers, they can save the plant money.

"For instance, when lung cancer occurs in a worker who smokes, it may be very difficult to ascertain whether work or smoking was the cause. If there is any doubt, management usually has to pay through workmen's compensation, higher insurance premiums, or litigation."

Stress management classes help to reduce absenteeism, and can also save the company money. Sometimes the worker has as much stress to deal with as a supervisor or manager. Tedious repetitive tasks over which the worker has little control can be the source of tremendous stress.

Exercise classes — aerobics, exerobics and dancerobics — pay off in improved physical fitness morale for the company. It is relatively cheap to set up a company exercise program and the exercise classes show the worker that the employer cares.

Physical examinations are another important responsibility of the occupational medicine physician and his team. When a worker first begins his or her job, a pre-placement physical is given. During this physical the company learns about hypersensitivities, physical defects, and other problems which are important in placing a worker in the appropriate environment.

The real goal is to relate potential exposure to personal vulnerabilities. For example, a potential worker may be hypersensitive to formaldehyde, in which case, the employer would be wise to place the worker in an environment free of that substance.

Later on, routine physicals can pick up sensitivities or health problems as they develop. Other examinations include special examinations such as those used for the pilot who flies the company plane, return-to-work physicals, and retirement physicals.

"Occupational medicine involves many moral, ethical and legal questions," says Altekruse. For instance, is the physician ultimately responsible to the industry who pays him or to the worker/patient? Does the physician have to compromise?

And there is the difficult job of deciding just how responsible the company is for a particular illness. For example, four out of 10 people in the United States will have cancer; one out of six will die of it. How much of this cancer occurs from exposure to the work environment, how much from smoking, and how much occurs spontaneously?

Occupational hazards also vary greatly depending on geographic location. "In Georgia, we have a problem with workers who deal with kaolin," says Dr. Bashir A. Chaudhary, associate professor of medicine at the Medical College of Georgia.

When a local plant found that their workers had a higher incidence of pneumonconiosis than the general population, they decided to call in outside help. Drs. Chaudhary and Altekruse from the Medical College of Georgia were called in to give assistance.

"We performed a study," says Chaudhary, "to determine the dust concentrations in various work areas and to assess the prevalence of radiographic and pulmonary function abnormalities in 65 workers at a Georgia kaolin mine."

Kaolin is dug from the ground, sliced, dried and pulverised to make the finished product which is used in ceramics, paper, paint, cement manufacture, and pharmaceuticals.

"It is a dusty process," adds Chaudhary.

"But because of our study, the concentration of dust in work areas has been decreased, particularly vulnerable employees have been transferred to dust-free areas, and face masks have been supplied to prevent dust from entering through the nose."

Chaudhary said that their job was to identify effects of kaolin exposure, perform tests, and decide whether kaolin was affecting the lungs of workers. It was.

"The employers are obviously concerned," he states. "They want to protect the workers' health, both for the sake of the workers and to avoid any legal problems."

Georgia's occupational hazards are no greater than any other state's, only a little different. Georgia's unique occupational hazards are: kaolin, a problem unique to Georgia and South Carolina; cotton mills, a potential health hazard in Georgia; and asbestos, a special problem in this area because of the large number of workers exposed when building ships in World War II.

"Basically," says Chaudhary, "our job as physicians interested in occupational health means that we survey and study the problem and then take the appropriate steps to rectify it. It is a challenge, but it is satisfying."

Altekruse agrees: "It takes perseverance because the process of change is gradual and goals are achieved slowly.

"However," he adds, "it is encouraging that communities, special interest groups within communities such as management and employees, and health providers are learning to work in harmony to achieve mutually beneficial results." ■

MCG RESEARCH UPDATE

BY MANDY ROTH

Hope for shingles victims

An MCG dentist has developed a procedure which permanently relieves the pain occurring after an outbreak of shingles in 80 percent of patients treated.

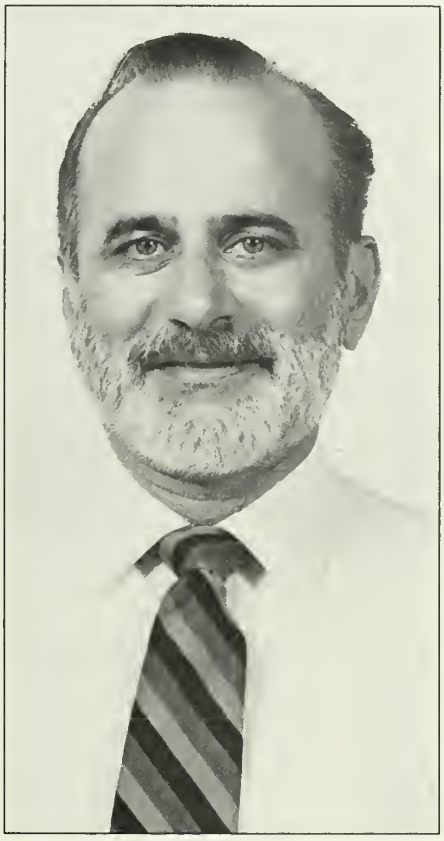
Shingles is caused by the same virus (varicella zoster) responsible for the childhood disease chicken pox. The virus hides in nerve cell bodies and later may return as shingles, reinfecting the skin with a rash and blisters along the nerve path.

The active shingles is painful and lasts about 28 days. After healing, the area supplied by the nerve may show a severe neuralgic pain (post-herpetic neuralgia) which is chronic and often unbearable.

Dr. Louis P. Gangarosa, professor of pharmacology and oral biology, began treating shingles patients after successfully treating cold sores caused by a related herpes virus.

Using a procedure known as iontophoresis, Gangarosa is able to drive a pain-killing drug deep into the tissue. "Iontophoresis is a method of introducing drugs into the skin or surface tissues based upon the principle that electric current will move ions in the electric field, much like electroplating," he says.

The drugs he uses have an ionic charge — either positive or negative. The drug solution is applied on the area to be treated and an electrode with the same charge is placed over the spot. An electrode of the opposite charge is placed on another part of the body and



Dr. Louis P. Gangarosa

a slight, tingling, but painless, current passes between the two electrodes, forcing medication into the tissue.

"We think one reason it works so well is because this allows the drug to spread evenly throughout the tissue, as well as providing a much higher concentration of the drug in the skin than can be achieved by other methods," says Gangarosa.

For the most effective treatment, he conducts the procedure using antiviral drugs while the rash is active. The lesions will heal and the virus disappears or retreats.

Sometimes, after the initial procedure, or when no treatment has been given, nerve endings at the healed lesion sites can produce a "tremendous, chronic, unbearable pain," says Gangarosa. At this time, iontophoresis can be used again with pain-killing drugs.

Eighty percent of patients receiving this treatment experience permanent pain relief, he says. Another 10 percent receive partial relief and 10 percent experience no relief.

Gangarosa began treating shingles patients in 1979 and with colleagues, has treated about 50 patients.

Catravas named American Heart Association Established Investigator

Dr. John D. Catravas, assistant professor of pharmacology and toxicology, has been named an American Heart Association Established Investigator. Catravas is one of 58 investigators named nationwide with a five-year contract beginning July 1.

Catravas is studying how lung microvessels process hormones involved in blood pressure control.

Catravas is specifically studying a substance called angiotensin converting enzyme (ACE), which plays an important role in elevating blood pressure. It raises blood pressure in two ways: First, ACE combines with angiotensin I, pro-

MCG RESEARCH UPDATE

Dr. John D. Catravas

ducing angiotensin II, the most potent substance for raising blood pressure.

Secondly, when combined with bradykinin — the most potent substance to reduce blood pressure — ACE inactivates the action of this substance. Therefore, by inhibiting the action of ACE, it is possible to lower blood pressure.

The drug captopril has already been identified as an ACE inhibitor and is marketed as an antihypertensive agent. Because captopril is thought to have some undesirable side effects, Catravas is studying the effectiveness of other drugs. In addition, he is testing the effectiveness of these agents to act on ACE in the presence of specific diseases.

"We're evaluating the ability of these drugs to inhibit ACE in laboratory animals and eventually in humans. We would hope to do clinical studies in collaboration with clinicians at MCG," Catravas said.

Catravas joins 1982 recipient Dr. Robert E. Godt, associate professor of physiology, and 1984 recipient Dr. Margaret Kirby, associate professor of anatomy, as the only other American Heart Association Established Investigators in Georgia. ■

Goldstein studies crushed nerves

Crushed nerves and toxic poisoning don't appear to have much in common. But Dr. Barry Goldstein, assistant professor of pharmacology and toxicology, has been able to duplicate the repair process which occurs when a nerve is crushed by studying the neurotoxic effects of acrylamide.

Acrylamide is a substance used for water purification and other industrial applications. Toxic exposure is known to cause numbness in hands and feet, blurred vision and memory loss.

In studying how acrylamide affects the nervous system, Goldstein found that it mimics an "amputee state."

When a nerve is damaged, nearby axons sprout new pathways to the damaged area to compensate for the injured neuron. The same process occurs when laboratory animals are exposed to acrylamide. Ten days after exposure to the toxin, motor neurons register no response. However, after 10 more days, Goldstein records twice the normal responses in motor neurons, indicating that new nerve pathways have been established along with restoration of previous function.

Dr. Barry Goldstein

"For the first time we're seeing normal response to nerve injury after toxic insult," says Goldstein. "As a result, we're finding pathological situations we didn't know occurred. We can use these situations as models for other studies. We're right at the beginning. We don't know where this is going to go."

CLASS NOTES

SCHOOL OF ALLIED HEALTH SCIENCES

Department of Medical Record Administration

Marjorie A. Herring, '76, Tallahassee, FL, received an MS in Health Education from Florida State University in April, 1984, and was elected president of the Northwest Florida Medical Record Association for 1984-85.

Department of Physician's Assistant

Richard K. Fisher, Jr., '80, will graduate in June with a Doctor of Osteopathic Medicine Degree from the Kirksville College of Osteopathic Medicine. He will then begin an Internal Medicine residency at Ft. Gordon's Eisenhower Army Medical Center.

SCHOOL OF DENTISTRY

Elizabeth Ann Bernhard, '75, Glen Allen, VA, is chairperson for District 5 of the American Association of Women Dentists.

William B. Nipper, Jr., '73, Jacksonville, FL, serves as 1984-85 President of the Clay County Dental Society.

SCHOOL OF GRADUATE STUDIES

Gary Hunter Watson, '82, Lubbock, TX, is presently employed in the Bio-Chemistry Department at Texas Tech University Health Sciences Center.

SCHOOL OF MEDICINE

Carol Weisman Beck, '78, University Heights, OH, was elected to Fellowship in the American Academy of Pediatrics at a recent meeting of the AAP Board. To qualify as a Fellow in the community, a pediatrician must have been certified as a fully qualified specialist in the field of child health. Certification requires a minimum of five years post-medical school experience.

Dempsey S. Brown, Jr., '67, Macon, was elected to Fellowship in the American College of Surgeons in 1981. At the present time, he is President of Staff at Coliseum Park Hospital and is a Clinical Associate Professor in the department of Surgery at Mercer Medical School. His wife, Sandra, will be installed as President of the Auxiliary to the Bibb County Medical Society in May '85.

Earl A. Burch, Jr., '75, Metairie, LA, is Associate Professor of Psychiatry at Tulane Medical School and Chief of the Psychiatry Service at the New Orleans VA Medical Center. He continues to pursue his research and clinical work/teaching in clinical psychopharmacology.

Kenneth D. Deaton, '78, Sacramento, CA, will begin a fellowship in Hematology/Oncology October 1, 1985 at the Boston VA Hospital.

Stanley W. Hall, Jr., '70, LaGrange, GA, has been elected a member of the Board of Clarke-Holder Clinic P.A.

William L. Heyward, '76, Anchorage, AL, has recently been appointed Director of the Arctic Investigations Laboratory, CPC. Heyward has been employed by the Centers for Disease Control as an epidemiologist for the past five years. He completed an internal medicine internship residency at the University of Arizona Affiliated Hospitals 1976-79.

Clarence Hunter, '78, Alamogondo, NM, ends his Air Force obligation in June and plans to go into private pediatric practice this summer in Statesboro. He and his wife, Jane have three children: Nicole, 4, William, 3, and Daniel, 1.

Michael C. Mobley, '75, Savannah, is Chief of Psychiatry at Memorial Medical Center and a member of the Advisory Board of Charter Board Oaks Hospital. He is currently enjoying private practice in Psychiatry. He and his wife, **Debbie Russell,** PA, '75 have 2 daughters, Elizabeth Marie, 2½ and Susan Colleen, 1½.

Charles L. Rice, '68, Bellevue, WA, has recently assumed new positions as Surgeon-in-Chief at Harborview Medical Center and Professor and Vice-Chairman, Department of Surgery, University of Washington, Seattle. He and his wife Judy have two sons, Aaron and Patrick.

Earle McRae Taylor, '82, Jacksonville, FL, will serve as Medical Director of a Primary Health Center in nearby Callahan after two years of internal medicine. He plans on spending more time with his wife, Kathleen, and their daughter, Theresa, 1.

Celia M. Thomas, '82, Decatur, is engaged to **W. Clark Jernigan,** MD, '81 April 27, 1985.

Edward C. Watt, Jr., '69, Jacksonville, FL, is in the private practice of OB-GYN; he and his wife announce the birth of a fourth child.

William H. Whaley, '66, Atlanta, GA, a specialist in hematology and oncology, was named president of the Medical Associates of Atlanta.

SCHOOL OF NURSING

Bernice Crawford Brantley, MSN, '74, is on the faculty in the Nursing Division, Dekalb Community College. She is also a clinical evaluator for the New York Regents External Degree Program.

Vickie Pendley Fox, BSN, '79, MSN, '80, Marietta, was married September 1, 1984.

Jeanette B. Lane, BSNE, '58, Atlanta, announces that her oldest son, Fred Andrew, Jr., an '84 graduate of Emory, is editor of the Harralson County Times. Her youngest son, David, is currently a junior majoring in computer science at Georgia Tech.

Linda R. Pannell, BSN, '71, Cordele, works part-time in the Cordele Area Mental Health Center. She and her husband, **Bill,** a '71 School of Medicine graduate, have three children: William, 6, Stephanie, 4, and Preston, 2.

DEATHS

John R. Bartholomew, '82, ASOLT, Valdosta, GA

Leslie A. Fink, MD, '54, San Francisco, CA

Jerome B. Hamer, MD, '38, Charlotte, NC

Zachary M. Kilpatrick, MD, '59, Augusta, GA

James S. Peters, Jr., MD, '40, Atlanta, GA

Dr. and Mrs. William Collins

Dr. and Mrs. Bleakley Chandler

Scenes from the President's

The seventh annual MCG Presidents Dinner was held to recognize exceptional community leaders who have generously supported the college.

During the December dinner meeting, MCG President Jesse Steinfeld recognized members of the Founders Club: those individuals who contributed $10,000 or more to the MCG Foundation. New members are Mr. Robert Bohler and Mrs. Lois Bohler, Dr. and Mrs. Bleakley Chandler, Dr. and Mrs. William Collins, Dr. and Mrs. Wells Riley, Mrs. Linda Spooner and Mrs. Florence Pratt.

Steinfeld presented each member with a bronze relief mensa of the original Medical College Building in honor of the pioneering educators who

Robert and Lois Bohler

Dinner

ounded MCG.

The President also welcomed two new members of the Presidents Club: Dr. Taher El Gammal and Mr. Whitney O'Keeffe (Trust Company Bank). Each received a Freeman Schoolcraft sculpture of the original Medical College Building.

Each member of the Presidents Club personally or through an organization contributed $50,000 or more through the MCG Foundation. Members of The Presidents Club are invited to meet periodically with the President and members of the Medical College staff to discuss objectives, plans, problems and progress, and are recognized as special ambassadors of MCG.

Dr. Taher El Gammal

Dr. and Mrs. Wells Riley

Whitney O'Keeffe

Future MCG Continuing Education Programs

CLINICAL OBSTETRICS: RECENT ADVANCES
July 11-13
East Beach Conference Center, Kiawah Island, S. C.
School of Medicine

THIRD ANNUAL DENTAL HYGIENE SYMPOSIUM
July 12-14
Sheraton Savannah Resort and Country Club
School of Dentistry

CLINICAL CARDIOLOGY
July 15-18
Hilton Head Inn, Hilton Head Island, S. C.
School of Medicine

PULMONARY DISEASES
July 18-21
East Beach Conference Center, Kiawah Island, S. C.
School of Medicine

HEALTH CAREERS SEMINAR
July 22-26
MCG Campus
School of Allied Health Sciences

CRITICAL CARE SYMPOSIUM
July 24-28
East Beach Conference Center, Kiawah Island, S. C.
School of Medicine

PEDIATRIC UPDATE: 1985
July 29-31
East Beach Conference Center, Kiawah Island, S. C.
School of Medicine

GENETICS
August 1-3
East Beach Conference Center, Kiawah Island, S. C.
School of Medicine

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